Addendum to the Comparative Exposure – Eureka, Helena, Whitefish ABS Sampling and Analysis Plan/Quality Assurance Project Plan:
Addition of Flower Creek ABS Location
August 3, 2012

Background and Purpose

The U.S. Environmental Protection Agency (EPA) has performed several investigations at the Libby Asbestos Superfund Site to evaluate potential exposures to LA released from a variety of source materials by measuring the concentration of LA in breathing zone air during source disturbance activities. This is referred to as "activity-based sampling", or ABS. Of the numerous types of ABS scenarios that have been conducted at the Site, two scenarios have been shown to be representative of high-end scenarios with respect to releases of LA from contaminated soil and duff material – a digging scenario (simulating a child digging) and a fireline scenario (simulating a firefighter digging a fireline by hand).

This document is an addendum to the *Comparative Exposure – Eureka, Helena, Whitefish Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP)* (EPA 2012a). As part of the Comparative Exposure Study (EPA 2012a), the digging and fireline ABS scenarios will be performed and source materials (soil, duff, tree bark) will be collected in areas located near Eureka, Helena, and Whitefish to provide a frame of reference for making comparisons to data collected in Libby. The purpose of this addendum is to describe an additional field sampling effort that will be performed at a new ABS location near Flower Creek, located south of Libby. Data collected from Flower Creek can also be used to provide information that can be used as a frame of reference for exposures in Libby.

ABS Location

The Flower Creek location is in an area for timber sale that is also being evaluated as part of the OU4 Commercial Logging ABS Study (EPA 2012b). **Figure 1** provides a map of the Flower Creek ABS area. The ABS location selected in this area should be accessible via forest service roads and have adequate tree cover.

Sampling Approach

The same ABS scenarios and environmental media sampling efforts will be performed at Flower Creek as will be performed in Eureka, Helena, and Whitefish (see Section B1 of the *Comparative Exposure – Eureka, Helena, Whitefish SAP/QAPP*). In brief, one composite sample of each source media (tree bark, duff, and soil) will be collected from the ABS location. In addition, ABS air samples will be collected during activities that are representative of the digging and the fireline scenarios (see Appendix D of the SAP/QAPP for ABS Scripts). Field activities will be performed in accordance with the sampling methods and procedures described in Section B of the SAP/QAPP.

Analytical Approach

All Flower Creek ABS air, tree bark, duff, and soil samples will be analyzed by transmission electron microscopy (TEM) in accordance with the procedures specified in Section B4 of the *Comparative Exposure - Eureka, Helena, Whitefish SAP/QAPP*. These analytical requirements are also summarized in the investigation-specific *Summary of Analytical Requirements for Asbestos* **[COMPOU4-0612]** (as provided in Appendix E of the SAP/QAPP).

Quality Assurance/Quality Control Procedures

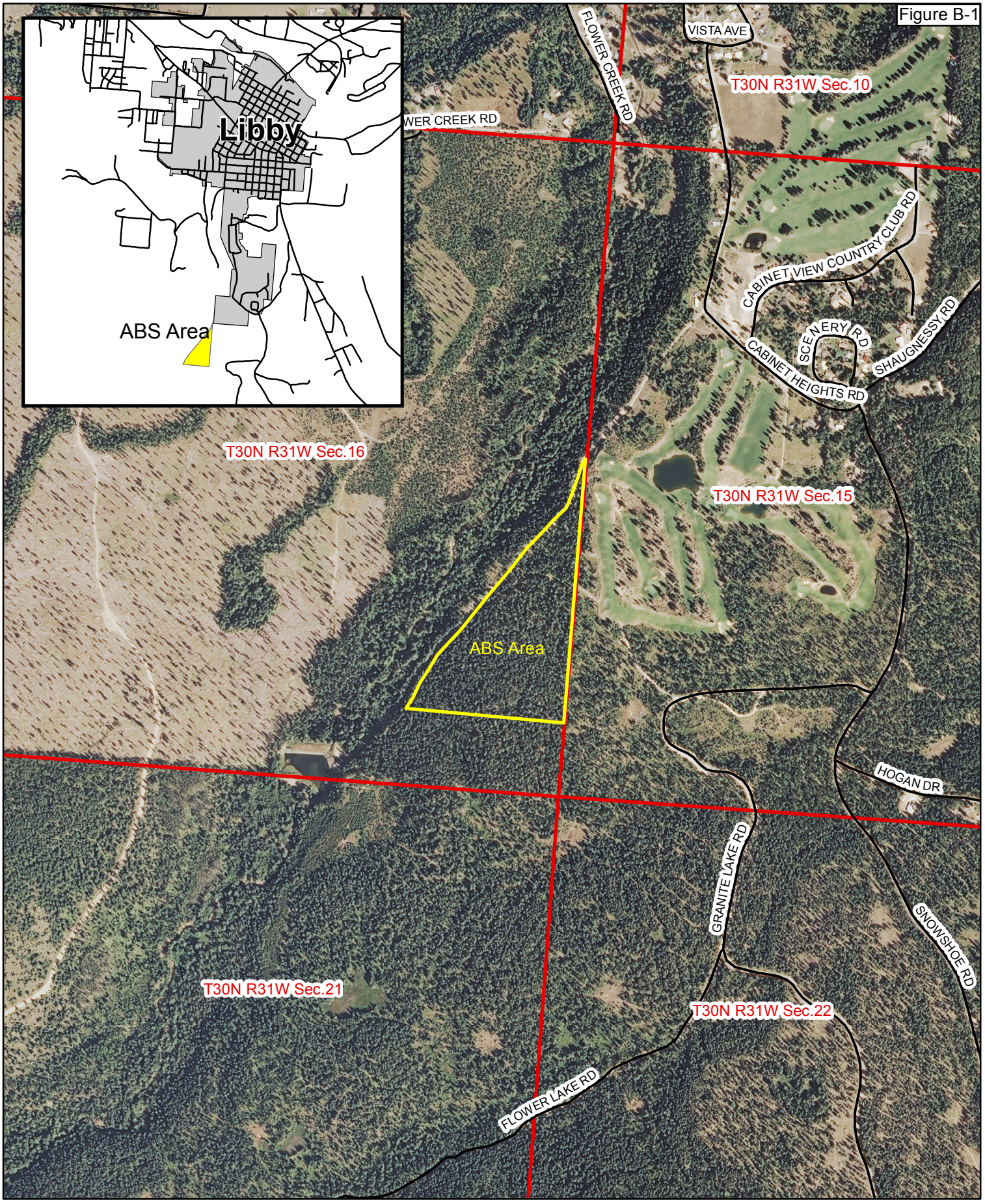
The field sampling effort for Flower Creek and subsequent analysis will be performed in accordance with the quality assurance/quality control (QA/QC) requirements specified in Section B5 of the *Comparative Exposure - Eureka, Helena, Whitefish SAP/QAPP*.

References

EPA. 2012a. *Sampling and Analysis Plan/Quality Assurance Project Plan: Comparative Exposure – Eureka, Helena, Whitefish, Libby Asbestos Site, Operable Unit 4.* Prepared for the U.S. Environmental Protection Agency, Region 8 by CDM Federal Programs Corporation. Revision 1 – July 2012.

EPA. 2012b. *Sampling and Analysis Plan/Quality Assurance Project Plan: Commercial Logging, Operable Unit 4.* Prepared for the U.S. Environmental Protection Agency, Region 8 by CDM Federal Programs Corporation. Revision 0 – August 2012.

FIGURE 1
FLOWER CREEK ABS AREA



Imagery Source: NAIP 2011
Public Land Survey: BLM (1:100,000)

This map is for general reference only and is not to be used to establish legal boundaries or for any other legal purpose. Road and PLS data is from public sources and subject to inherent inaccuracies.

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1:12,000

1 inch = 1,000 feet

1,300 650 0 1,300 Feet

CDM Smith

Commercial Logging
ABS Scenario Location Map